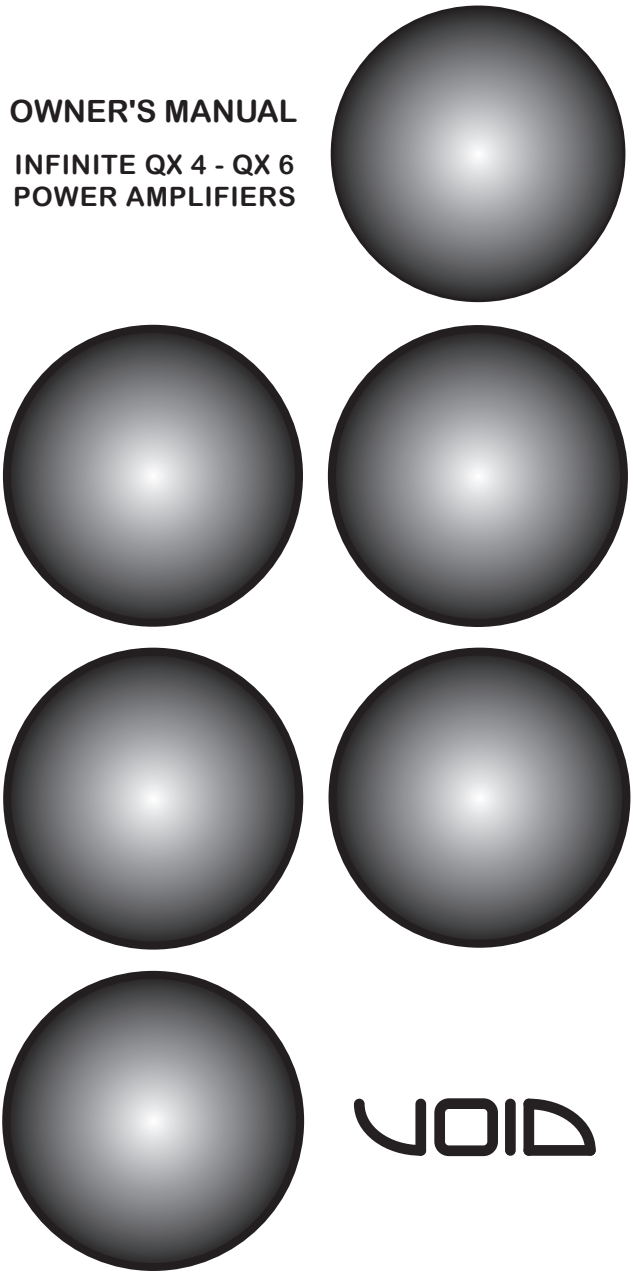
OWNER'S MANUAL

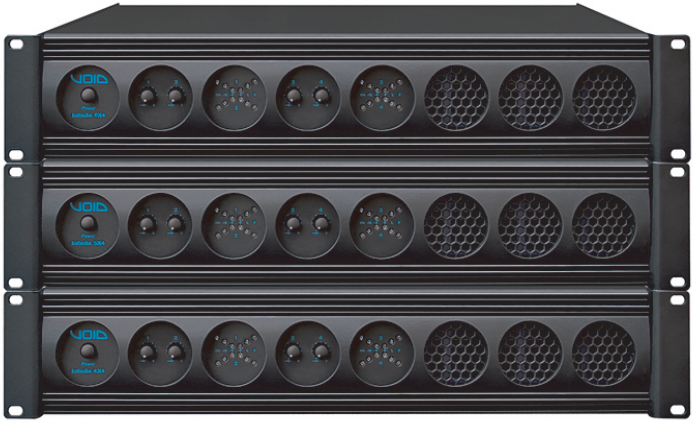
INFINITE QX 4 - QX 6
POWER AMPLIFIERS



VOID

OWNER'S MANUAL

INFINITE QX 4 - QX 6
POWER AMPLIFIERS



IMPORTANT
THE PRODUCT REQUIRES
CLASS 2 OUTPUT WIRING.

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE TOP OR BOTTOM COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DISCONNECT POWER CORD BEFORE REMOVING REAR PANEL COVER TO ACCESS GAIN SWITCH.

Shock Hazard - Do Not Enter
Choc Hasard - N*entrent
Schocke Hazard - Test Nicht Betrete
Urto Hazard - Do Non Entrano

WARNING

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE!

Magnetic Field

CAUTION: Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below this unit. Because this amplifier has a high power density, it has a strong magnetic field which can induce hum into unshielded devices that are located nearby. This field is strongest just above and below the unit. If an equipment rack is used, we recommend locating the amplifier(s) at the bottom of the rack and the preamplifier or other sensitive equipment at the top.

The lightning bolt triangle is used alert the user to the risk of electric shock

The exclamation point triangle is used to alert the user to important operating and/or maintenance instructions.

Printed on recycled paper.

Features

- Rugged, touring grade chassis. E.I.A. Standard 2U 19" (48.3cm) rack-mountable.
- Ultra high frequency switch modulated power supply (SMP).
- 'VSP' Velocity Sense Protection circuitry protects speakers from over excursion.
- 'CEP' Clip Elimination Protection prevents clipped waveforms from reaching the outputs.
- Four independent filter networks with adjustable crossover frequencies.
- Stereo, parallel and bridge operation for optimal load matching.
- Soft start for loudspeaker protection.
- Complete protection against shorted outputs, mismatched loads, overheating and DC input/output.
- Three year warranty and guarantee.

Precautions

Although your amplifier is protected from external faults, the following safety precautions are recommended:

1. **Do not change the position of the bridge - parallel - stereo switch until the input levels have been turned down.**

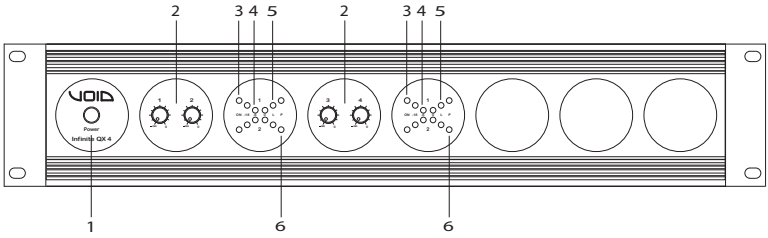
2. There are important differences between Stereo, Parallel and Bridge mode operation. Please refer to page 8 for a detailed description of the different modes and there uses.

3. Switch off the amplifier or turn down the inputs before connecting to the in/out XLR's.

4. Do not short the ground lead of an output cable to the input signal ground. This will form a ground loop and may cause oscillations.

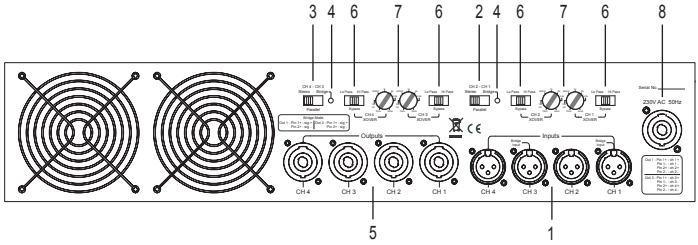
5. Do not connect both channels positive outputs together in parallel or stereo modes. And never connect any channels positive output to chassis ground.

6. Do not operate the amplifier from AC mains in excess of 10% variation above or below the selected line voltage, and only at the specified line frequency.



Front Panel

1. **Power Switch**
   Used to turn the amplifier on or off.
2. **Level Controls**
   Used to control CH 1, 2, 3 & 4's output levels.
3. **Power LED's**
   The Power LED's indicate that each channel is active.
4. **Signal LED's**
   When illuminated the LEDs indicate an audio signal is present at the channel's output.
5. **'CEP' LED's (L)**
   The CEP LED's indicate the Clip Elimination circuit is active. The CEP circuit works by examining the audio output signal, it then regulates many circuits within the amplifier to reduce clipping at the output. Note that the CEP circuit can only prevent a clipped waveform from be generated within the amplifier itself, it cannot remove a clipped waveform that has been produced from a component earlier in the chain.
6. **Protect LED's (P)**
   The protect LED's light up when the amplifier detects speaker over excursion, dangerous subsonic frequencies, DC or thermal overload. Note the protect LED's also indicate the soft start circuit is active, so will illuminate during power on. See page 8 for more details about the VSP protection circuit.



Rear Panel

1. **Input XLR's**
   The input impedance of the balanced XLR's is 20Kohms. Pin 2 is signal +
2. **CH 1 - CH 2 Mode Switch**
   Selects stereo, parallel or bridge modes between CH 1 & 2.
   See page 8 for more details.
3. **CH 3 - CH 4 Mode Switch**
   Selects stereo, parallel or bridge modes between CH 3 & 4.
   See page 8 for more details.
4. **Bridge Mode Light**
   A blue LED will illuminate when 2 channels are operating in bridge mode.
   Use input 1 when bridging CH 1 & CH 2 and output 1 (pins 1+, 2+)
   Use input 3 when bridging CH 3 & CH 4 and output 3 (pins 1+, 2+)
   See page 8 for more details.
5. **Speakon Outputs**
   Output 1 is wired with CH 1 on pins 1+, 1- and CH 2 on pins 2+, 2-.
   Output 3 is wired with CH 3 on pins 1+, 1- and CH 4 on pins 2+, 2-.
   Outputs 2 and 4 are wired 1+, 1- only.
6. **Channel Filter Switch**
   Selects between Hi Pass, Lo Pass or no filter (bypass) for each channel.
7. **Filter Frequency Selector**
   Adjusts each channels filter frequency anywhere between 70Hz to 5kHz.
8. **Power Input**
   32 Amp Powercon socket. 230 VAC 50Hz.

TECHNICAL SPECIFICATIONS For Infinite models QX 4 - QX 6

FREQUENCY RESPONSE ref.100W@8Ω	20Hz - 20kHz +0.05 dB / -0.06 dB
THD ref. 4Ω, 1KHz	0.02%
S/N 20Hz-20kHz, ref full output	104 dB
INPUT IMPEDANCE	20kΩ balanced
CROSSTALK	>90dB
CMRR ref. 1KHz	>87dB
SLEW RATE	60V/us
DAMPING FACTOR 1kHz and Below	>400
FILTER SLOPE & TYPE	24dB/oct Linkwitz-Riley
CONNECTORS	Input: balanced XLR Output: Speakon
COOLING	Variable speed fans
AMPLIFIER PROTECTION	Full short circuit, open circuit, thermal, ultrasonic, and RF protection, stable into reactive or mismatched loads
VOLTAGE RANGE	230 VAC 50Hz +/- 10%

			Infinite QX 4		Infinite QX 5		Infinite QX 6	
			RMS Output Power per ch		RMS Output Power per ch		RMS Output Power per ch	
Mode		Impedance	0.1%THD+N	0.1%THD+N	0.1%THD+N	0.1%THD+N	0.1%THD+N	0.1%THD+N
			1kHz	10Hz-20kHz	1kHz	10Hz-20kHz	1kHz	10Hz-20kHz
Stereo (Both CH Driven)		8	400	395	600	595	900	894
		4	600	596	1000	997	1200	1195
		2	900	894	1500	1496	-------	-------
Bridge Mode		8	2 x 1200	2 x 1192	2 x 2000	2 x 1994	2 x 2400	2 x 2390
		4	2 x 1800	2 x 1788	2 x 3000	2 x 2992	-------	-------
Voltage Gain (8 Ω)			36.07dBu		37.83dBu		39.59dBu	
Maximum Current Draw			all ch - 2 ohms 18.78 Amps		all ch - 2 ohms 31.29 Amps		all ch - 4 ohms 25.03 Amps	

Dimensions :

48.3 cm (19") wide, 8.8 cm (3.5") high and 36.8 cm (14.5") deep.

Weight:

Infinite QX 4 :

10.5 Kg (23.1 lbs) net.
12.1 Kg (26.7 lbs) shipping weight.

Infinite QX 5 :

10.5 Kg (23.1 lbs) net.
12.1 Kg (26.7 lbs) shipping weight.

Infinite QX 6 :

10.6 Kg (23.3 lbs) net.
12.2 Kg (26.9 lbs) shipping weight.

Notes

Bridge Mode

To bridge channel 1 and 2 connect to input 1 only and use CH1 speakon output (pins 1+, 2+). To bridge channel 3 and 4 connect to input 3 only and use CH3 speakon output (pins 1+, 2+). Pin 1+ will be signal positive (+) on output 1 and 3 in bridge mode.

Use channel 1's filter when bridging channels 1 and 2 and channel 3's filter when bridging channels 3 and 4. Channel 2's filter is not operational when channel 1 and 2 are bridged and channel 4's filter is not operational when channel 3 and 4 are bridged.

The minimum impedance in bridge mode must be 4 ohms for the Infinite QX 4 and QX 5 and 8 ohms for Infinite QX 6.

Parallel Mode

When input 1 and 2's mode switch is set to parallel, input 1 is linked to input 2. Connect to input 1 or input 2 and the same signal will output from both CH1 and CH2 outputs. Each channels level is set with its own front panel level control.

When input 3 and 4's mode switch is set to parallel, input 3 is linked to input 4. Connect to input 3 or input 4 and the same signal will output from both CH3 and CH4 outputs. Each channels level is set with its own front panel level control.

Note that parallel operation on Infinite X amplifiers is not like the parallel mode on some amplifiers that allow you to drive into very low impedances. Parallel mode on Infinite X series amplifiers makes a pair of inputs receive the same signal.

Stereo Mode

When input 1 and 2's mode switch is set to stereo, input 1 and 2 are not linked and operate independently. When input 3 and 4's mode switch is set to stereo, input 3 and 4 are not linked and operate independently.

VSP Velocity Sense Protection (limit)

All Infinite X amplifiers are equipped with velocity sensing protection.
The VSP circuit monitors back EMF and will attenuate the output for a very brief period if the amplifier detects over excursion or potential damage to a speaker.

If very severe overload conditions are detected and speaker failure is imminent, the amplifier will mute its output for a brief period. Reducing the amplifiers output level will stop the protection circuit from muting the output in this situation.

Please note that the VSP circuit can only assist with protecting your speakers.
It in no way guarantees complete protection against any component failure and safe working practices should always be followed with regard to matching amplifier output levels to speaker input ratings.

Service

This unit has very sophisticated circuitry and should only be serviced by a fully trained technician.

No user serviceable parts inside
Refer servicing to a qualified technician

Worldwide Service

Service may be obtained from your local authorised service centre. To obtain service, simply present your sales receipt as proof of purchase along with the defective unit to an authorised service centre. They will handle the necessary paperwork and repair. Remember to transport your unit in the original factory packaging.

1. When sending an infinite Series product to an authorised service centre for service, please write a detailed description of the fault and list any other equipment used in conjunction with the faulty product. Send the fault description with the faulty product, do not send it separately.

2. Ensure safe transportation of your unit to the authorised service centre. Ship it in the original factory packaging if possible.

3. Do not ship the unit in any kind of rack. Ignoring this warning may result in extensive damage to the unit and the equipment rack. Accessories are not needed. Do not send the instruction manual, cables or any other hardware.

4. Before returning your faulty product for repair, please remember to get a return authorisation number from the dealer whom you purchased your product from. Failure to do so could delay the repair of your product.

Warranty Registration

Please take time to fill out the warranty registration form at the back of this manual and return it to Void Acoustics.

Environmental

WEEE Mark

If you want to dispose of this product, do not mix with general household waste. There are separate collection systems for used electronic products in accordance with legislation under the WEEE Directive (Directive 2002/96/EC) and is effective only within the European Union.

This product is Rohs compliant

LIMITED WARRANTY

THE WARRANTY
For a period of three (3) years from the date of delivery to the original purchaser (as shown on the original invoice or sales receipt), Void Acoustics (hereinafter "Void") warrants to the ORIGINAL OWNER of each new Infinite Series product (provided it was purchased at an Authorised Void Dealer) that it is free of defects in materials and workmanship and that each product will meet or exceed all factory published specifications for each respective model. Void agrees to repair or replace (at its discretion) all defective parts at no charge for labour or materials; subject to following provisions:

WARRANTY VIOLATIONS
Void shall take no responsibility for repair or replacement as specified under this warranty, if the damaged product has been subject to misuse, accident, neglect or failure to comply with normal maintenance procedures; or if the serial number has been defaced, altered or removed. Nor will Void accept responsibility for, or resulting from, improper alterations or unauthorised parts or repairs. This warranty does not cover any damage to speakers or any other consequential damage resulting from breach of any written or implied warranty.

VOID WARRANTY PROVISIONS
Void will remedy any defect, regardless of the reason for failure (except as excluded) by repair, or replacement. Void will remedy the defect and ship the product within a reasonable time after receipt of the defective product at an Void Authorised Service Centre.

TO OBTAIN WARRANTY SERVICE
In the event that a Void product requires service, the Owner must contact Void or an Authorised Void Service Centre to receive an R.A.N. (Return Authorisation Number) and instructions on how to return the product to the Void Authorised Service Centre, or to the factory. Void (or its Authorised Service Centre) will initiate corrective repairs upon receipt of the returned product. Please save the original carton and all the packing materials in case shipping is required. All products being returned to the factory or service centre for repairs must be shipped prepaid.

If the repairs made by Void or the Void Authorised Service Centre are not satisfactory, the Owner is instructed to give written notice to Void. If the defect or malfunction remains after a reasonable amount of attempts by Void to remedy the defect or malfunction, the Owner shall then have the option to elect either a refund or replacement of said Void product free of charge. The refund shall be an amount equal to but not greater than the actual purchase price, not including any taxes, interest, insurance, closing costs and other finance charges (minus reasonable depreciation on the product). If a refund is necessary, the Owner must make the defective or malfunctioning product available to Void free and clear of all liens or other restrictions.

MODIFICATIONS OF EQUIPMENT
Void reserves the right to modify or change equipment (in whole or part) at any time prior to delivery thereof, in order to include therein electrical or mechanical improvements deemed appropriate by Void, but without incurring any liability to modify or change any equipment previously delivered, or to supply new equipment in accordance with any earlier specifications.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES
YOU, THE OWNER, ARE NOT ENTITLED TO RECOVER FROM VOID ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE VOID PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT.

WARRANTY ALTERATIONS
No person has the authority to enlarge, amend, or modify this Warranty. This Warranty is not extended by the length of time which the Owner is deprived of the use of product. Repairs and replacement parts provided pursuant to the Warranty shall carry only the non-expired portion of the Warranty.

THIS STATEMENT OF WARRANTY SUPERSEDES ALL OTHERS CONTAINED IN THIS MANUAL

Technical and design specifications are subject to change without notice

Void Acoustics Warranty

This Void Acoustics product is guaranteed against defects due to faulty materials or workmanship for a period of 3 years from the date of original purchase, subject to the following restrictions.

1. This warranty is only valid in the country of purchase.

2. That the product has not been abused or operated in conjunction with unsuitable or faulty apparatus.

3. That the product has not been modified, disassembled or tampered with by any person other than Void Acoustics technical staff.

4. That the product has not suffered damage in transit.

Do not send goods to Void Acoustics without first obtaining a return authorisation number.

Carriage costs to Void Acoustics will be returned to the customer if warranty work proves necessary. Packing, insurance and freight on the return journey will be paid by Void Acoustics or its authorised dealers.

This warranty in no way affects your statutory rights.

Void Acoustics

Unit 10B, Dawkins Road Ind Est, Poole, Dorset, BH15 4JD
Tel: +44 (0)844 410 1440 Fax: +44 (0)844 410 1439

Owner's Warranty Copy

Date of purchase

Model

Serial number

Suppliers name and address

Post code : Tel :

What to do if your Void product needs repair

Contact the dealer from whom you purchased the product and get a return authorisation number.

Return the product (preferably in its original box) to :

Void Acoustics, Unit 10B, Dawkins Road Ind Est, Poole, Dorset, BH15 4JD, UK.

Warranty Registration

Thank you for purchasing this Void product. Please complete this warranty registration card and cut off this part and send it to the address overleaf.

Date of purchase

Model

Serial number

Suppliers name and address

Post code :

Tel :

Your name and address

Post code :

Tel :

Void Acoustics

Unit 10B

Dawkins Road Ind Est

Poole

Dorset

BH15 4JD

UK